UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,331	08/10/2001	Kristiaan Johan Hubert Ghislanus Venken	Q65268	6160

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EXAMINER
YAO, KWANG BIN

ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)	
Office Action Summary		09/925,331	VENKEN ET AL.	
		Examiner	Art Unit	
		Kwang B. Yao	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>07 July 2005</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1 and 3-15* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *13-15* is/are allowed.

6) ☒ Claim(s) *1 and 3-12* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1, 3-15 have been considered but are moot

in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

3.   Claims 1, 3, 10, 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Zheng et

al. (US 5,745,477).

Zheng et al. discloses a communication system comprising the following features:

regarding claim 1, a communication method for a communication network comprising a

buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60), a line

termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) and a plurality of network

termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system not

shown in ATM NETWORK 10), said buffering element (Fig. 5, MEMORY 70, TRAFFIC

MANAGEMENT SYSTEM 60) being-coupled to said line termination element (Fig. 5,

RECEIVER 85, TRANSMITTER 84), and said line termination element (Fig. 5, RECEIVER 85,

TRANSMITTER 84) being-coupled to each of said network termination elements (Fig. 1,

DESTINATION END SYSTEM 14; and other end system not shown in ATM NETWORK 10)

over a shared medium, wherein said communication method comprises interacting between said

buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) and said

line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) to adjust (Fig. 5, ABR

CONTROLLER 82, TRAFFICE SHAPER 80; column 4, lines 1-9) a cell input/output rate of

said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) to at

least one bandwidth related condition (Fig. 2, BACKWARD RM CELLS) of each of said

network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system

not shown in ATM NETWORK 10), wherein said line termination element (Fig. 5, RECEIVER

85, TRANSMITTER 84) notifies said buffering element (Fig. 5, MEMORY 70, TRAFFIC

MANAGEMENT SYSTEM 60) to adjust (Fig. 5, ABR CONTROLLER 82, TRAFFICE

SHAPER 80; column 4, lines 1-9) said cell input/output rate of said buffering element (Fig. 5,

MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) to said at least one bandwidth related

condition of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and

other end system not shown in ATM NETWORK 10); regarding claim 3, a communication

method for a communication network comprising a buffering element (Fig. 5, MEMORY 70,

TRAFFIC MANAGEMENT SYSTEM 60), a line termination element (Fig. 5, RECEIVER 85,

TRANSMITTER 84) and a plurality of network termination elements (Fig. 1, DESTINATION

END SYSTEM 14; and other end system not shown in ATM NETWORK 10), said buffering

element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) coupled to said line

termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84), and said line termination

element (Fig. 5, RECEIVER 85, TRANSMITTER 84) coupled to each of said network

termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system not

shown in ATM NETWORK 10) over a shared medium, wherein said communication method

comprises interacting between said buffering element (Fig. 5, MEMORY 70, TRAFFIC

MANAGEMENT SYSTEM 60) and said line termination element (Fig. 5, RECEIVER 85,

TRANSMITTER 84) to adjust (Fig. 5, ABR CONTROLLER 82, TRAFFICE SHAPER 80;

column 4, lines 1-9) a cell input/output rate of said buffering element (Fig. 5, MEMORY 70,

TRAFFIC MANAGEMENT SYSTEM 60) to at least one bandwidth related condition (Fig. 2,

FORWARD RM CELLS) of each of said network termination elements (Fig. 1, DESTINATION

END SYSTEM 14; and other end system not shown in ATM NETWORK 10), wherein said

buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) notifies

said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) to adjust (Fig. 5,

ABR CONTROLLER 82, TRAFFICE SHAPER 80; column 4, lines 1-9) said at least one

bandwidth related condition of said network termination elements (Fig. 1, DESTINATION END

SYSTEM 14; and other end system not shown in ATM NETWORK 10) to said cell input/output

rate of said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM

60); regarding claim 10, a buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT

SYSTEM 60) to be used in a communication network, said communications network comprising

a line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) and a plurality of

network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system

not shown in ATM NETWORK 10), said line termination element (Fig. 5, RECEIVER 85,

TRANSMITTER 84) being-adapted to allocate bandwidth to each of said network termination

elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system not shown in ATM

NETWORK 10), said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT

SYSTEM 60) coupled to said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER

84), and said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) being

coupled to each of said network termination elements (Fig. 1, DESTINATION END SYSTEM

14; and other end system not shown in ATM NETWORK 10) over a shared medium, said

buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60)

comprising: a buffering part (Fig. 5, MEMORY 70), adapted to store cells sent to said buffering

element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60); a measuring part

(Fig. 5, TRAFFIC MANAGEMENT SYSTEM 60), coupled with an input to an output of said

buffering part and adapted to determine a criterion based on a cell input/output rate of said

buffering part; and an interpreting part (Fig. 5, TRAFFIC MANAGEMENT SYSTEM 60),

coupled with an input to an output of said a measuring part and adapted to generate an

interpretation of said criterion based on said cell input/output rate of said buffering part (Fig. 5,

MEMORY 70), wherein said buffering element (Fig. 5, MEMORY 70, TRAFFIC

MANAGEMENT SYSTEM 60) further comprises: a notification part, coupled with an input to

an output of said interpreting part and adapted to notify (Fig. 2, FORWARD RM CELLS) said

line termination (Fig. 5, RECEIVER 85, TRANSMITTER 84) of said interpretation of said

criterion based on said cell input/output rate of said buffering part (Fig. 5, MEMORY 70);

regarding claim 11, wherein said criterion is a characteristic (column 4, lines 54-59) of cells sent

to said buffering element. See column 1-8.

4.   Claims 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Zheng et al. (US

5,745,477).

        Zheng et al. discloses a communication system comprising the following features:

regarding claim 7, a line termination element (Fig. 5, NETWORK INTERFACE

CONTROLLER 62) to be used in a communication network, said communication network

comprising a buffering element (Fig. 5, MEMORY 70) and a plurality of network termination

elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM

NETWORK 10), said buffering element (Fig. 5, MEMORY 70) being coupled to said line

termination element (Fig. 5, NETWORK INTERFACE CONTROLLER 62), and said line

termination element being coupled to each of said network termination elements (Fig. 1,

DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10)

over a shared medium, said line termination element (Fig. 5, NETWORK INTERFACE

CONTROLLER 62) comprising : a detection part (Fig. 5, RECEIVER 85; TRANSMITTER

84), adapted to detect at least one condition of each of said network termination elements (Fig. 1,

DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10);

and a condition interpreting part (ABR CONTROLLER 82, TRAFFIC SHAPER 80), coupled

with an input to an output of said detection part (Fig. 5, RECEIVER 85; TRANSMITTER 84)

and adapted to derive an interpretation of said at least one condition of each of said network

termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not

shown in ATM NETWORK 10), wherein said line termination element (Fig. 5, NETWORK

INTERFACE CONTROLLER 62) further comprises: a notification part (ABR CONTROLLER

82, TRAFFIC SHAPER 80) , coupled with an input to an output of said condition interpreting

part (ABR CONTROLLER 82, TRAFFIC SHAPER 80) and adapted to notify said buffering

element (Fig. 5, MEMORY 70) of said interpretation of said at least one condition of each of

said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end

systems not shown in ATM NETWORK 10); regarding claim 8, wherein said condition

interpreting part (ABR CONTROLLER 82, TRAFFIC SHAPER 80) is adapted to derive a

bandwidth allocation for each of said network termination elements (Fig. 1, DESTINATION

END SYSTEM 14; and other end systems not shown in ATM NETWORK 10), based on said at

least one condition of each of said network termination elements (Fig. 1, DESTINATION END

SYSTEM 14; and other end systems not shown in ATM NETWORK 10); regarding claim 9,

wherein said condition interpreting part (ABR CONTROLLER 82, TRAFFIC SHAPER 80) is

adapted to transparently pass said at least one condition of each of said network termination

elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM

NETWORK 10). See column 1-10.

Claim Rejections - 35 USC § 103

5.   Claims 4, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zheng et al.

(US 5,745,477) in view of Soumiya et al. (US 6,094,418).

        Zheng et al. discloses a communication system comprising the following features:

regarding claim 4, buffering element to be used in a communication network, said

communications network comprising a line termination element (Fig. 5, RECEIVER 85;

TRANSMITTER 84) and a plurality of network termination elements (Fig. 1, DESTINATION

END SYSTEM 14; and other end systems not shown in ATM NETWORK 10), said buffering

element being coupled to said line termination element (Fig. 5, RECEIVER 85;

TRANSMITTER 84), and said line termination element (Fig. 5, RECEIVER 85;

TRANSMITTER 84) being coupled to each of said network termination elements (Fig. 1,

DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10)

over a shared medium, said buffering element comprises: a buffering part (Fig. 5, MEMORY

70) adapted to store cells sent to said buffering element; a measuring part (ABR CONTROLLER

82, TRAFFIC SHAPER 80) , coupled with an input to an output of said buffering part (Fig. 5,

MEMORY 70) and adapted to determine a criterion based on a cell input/output rate of said

buffering part (Fig. 5, MEMORY 70); an interpreting part (ABR CONTROLLER 82, TRAFFIC

SHAPER 80), coupled with an input to an output of said measuring part (ABR CONTROLLER

82, TRAFFIC SHAPER 80) and adapted to interpret said criterion based on said cell

input/output rate of said buffering part (Fig. 5, MEMORY 70) , wherein said buffering element

further comprises: a reception part, coupled with an output to an input of said interpreting part

(ABR CONTROLLER 82, TRAFFIC SHAPER 80) and adapted to receive a notification (Fig. 2,

BACKWARD RM CELLS) of said line termination containing an interpretation of at least one

condition of each of said network termination elements (Fig. 1, DESTINATION END SYSTEM

14; and other end systems not shown in ATM NETWORK 10), and that said interpreting part

(ABR CONTROLLER 82, TRAFFIC SHAPER 80) is adapted to derive said instruction from

said notification (Fig. 2, BACKWARD RM CELLS) of said line termination on said

interpretation of said at least one condition of each of said network termination elements (Fig. 1,

DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10);

regarding claim 5, wherein said criterion is a characteristic (column 4, lines 54-59) of cells sent

to said buffering element. See column 1-10.

Zheng et al. does not disclose the following features: being adapted to derive therefrom

an instruction for a policing part whether or not to discard or mark said cells sent to said

buffering element, a policing part, coupled with an input to an output of said interpreting part and

adapted to discard or mark said cells sent to said buffering element, based on said instruction of

said interpreting part.

Soumiya et al. discloses a communication system comprising the following features:

being adapted to derive therefrom an instruction for a policing part (Fig. 3, UPC FOR ABR 4,

column 3, lines 60-62) whether or not to discard or mark said cells sent to said buffering element

(Fig. 7, SHARED BUFFER MEMORY 21), a policing part (Fig. 3, UPC FOR ABR 4, column 3,

lines 60-62), coupled with an input to an output of said interpreting part and adapted to discard or

mark said cells sent to said buffering element (Fig. 7, SHARED BUFFER MEMORY 21), based

on said instruction of said interpreting part. See column 1-43. It would have been obvious to

one the ordinary skill in the art at the time of the invention to modify the system Zheng et al., by

using the features, as taught by Soumiya et al., in order to provide a reliable communication

system by preventing a network congestion based on feedback control. See Soumiya et al.,

column 1, lines 7-9.

6.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zheng et al. (US

5,745,477) in view of Soumiya et al. (US 6,094,418) as applied to claim 4 above, and further in

view of Smith et al. (US 6,452,905).

Zheng et al. and Soumiya et al. disclose the claimed limitations above. Zheng et al. and

Soumiya et al. do not disclose the following features: regarding claim 6, wherein said criterion is

a filling level of said buffering part (column 12, lines 5-24). It would have been obvious to one

the ordinary skill in the art at the time of the invention to modify the system Zheng et al. and

Soumiya et al., by using the features, as taught by Smith et al., in order to provide a reliable

communication system by avoiding buffer overflow and consequent loss of data. See Smith et

al., column 4, lines 21-23.

7.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zheng et al. (US

5,745,477) in view of Smith et al. (US 6,452,905).

Zheng et al. discloses the claimed limitations above. Zheng et al. does not disclose the

following features: regarding claim 12, wherein said criterion is a filling level of said buffering

part (column 12, lines 5-24). It would have been obvious to one the ordinary skill in the art at

the time of the invention to modify the system Zheng et al., by using the features, as taught by

Smith et al., in order to provide a reliable communication system by avoiding buffer overflow

and consequent loss of data. See Smith et al., column 4, lines 21-23.

Allowable Subject Matter

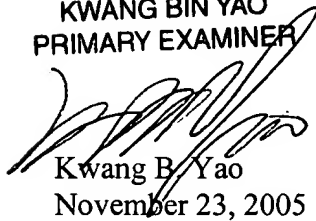8.   Claims 13-15 are allowed.

Conclusion

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kwang B. Yao whose telephone number is 571-272-3182. The

examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO
PRIMARY EXAMINER

Kwang B. Yao
November 23, 2005